2. (Amended) A method of preparing a multilayer piezoelectric device with alternating piezoelectric ceramic layers and base metal layers as electrodes comprising the steps of:

(a) applying onto a first layer, which includes a piezoelectric ceramic material selected from the group consisting of PZT, PMN, bismuth-based piezoelectric materials, and lead-free ceramics based on $BaTiO_3$ and a first combination of organic materials, a second layer, which includes a base metal powder having particles, which are coated with material capable of protecting said base metal against oxidation, and a second combination of organic materials, to produce a first structure;

(b) applying onto said first structure a second structure, which is identical to said first structure to produce a multilayer structure;

(c) heating said multilayer structure at a temperature less than 600°C to remove said first and second combinations of organic materials and their decomposition products to levels below 200 ppm; and thereafter

(d) sintering at a temperature from about 600°C to about 1050°C at a partial pressure of oxygen from about 10^{-3} to 10^{-15} atm to produce said multilayer piezoelectric device with alternating piezoelectric ceramic layers and base metal layers as electrodes.

3. (Amended) The method of claim 2, wherein said base metal is selected from the group consisting of Cu, Ni and alloys thereof.

4. (Amended) The method of claim 2, wherein said first combination of organic materials includes binder, solvents, plasticizers, dispersants, and combinations thereof.

5. (Amended) The method of claim 2, wherein said base metal coating to protect against oxidation is selected from the group consisting of glasses, metal oxides, organic material, noble metals, and combinations thereof.

6. (Amended) The method of claim 2, wherein said second combination of organic materials includes solvents, binder, and combinations thereof.

7. (Amended) The method of claim 2, wherein said heating is at a partial pressure of oxygen from about 10^{-4} atm to ambient atm.

8. (Amended) The method of claim 2, wherein said heating is at a temperature from about 25°C to about 500°C.

9. (Amended) A method of preparing a multilayer piezoelectric device with alternating piezoelectric ceramic layers and base metal layers as electrodes comprising the steps of:

   (a) applying onto a first layer, which includes a piezoelectric ceramic material selected from the group consisting of PZT, PMN, bismuth-based piezoelectric

materials, and lead-free ceramics based on $BaTiO_3$ and a first combination of organic materials, a second layer, which includes a base metal powder having particles, which are coated with material capable of protecting said base metal against oxidation, and a second combination of organic materials, to produce a first structure;

(b) applying onto said first structure a second structure, which is identical to said first structure to produce a multilayer structure;

(c) heating said multilayer structure at a temperature less than 600°C to remove said first and second combinations of organic materials and their decomposition products to levels below 200 ppm; thereafter

(d) sintering at a temperature from about 600°C to about 1050°C at a partial pressure of oxygen from about 10^{-3} to 10^{-15} atm to produce said multilayer piezoelectric device with alternating piezoelectric ceramic layers and base metal layers as electrodes; and

(e) cooling-down after said sintering step at a partial pressure of oxygen below 10^{-4} atm.

10. (Amended) A multilayer piezoelectric device with alternating piezoelectric ceramic layers and base metal layers as electrodes prepared by a method comprising the steps of:

(a) applying onto a first layer, which includes a piezoelectric ceramic material selected from the group consisting of PZT, PMN, bismuth-based piezoelectric materials, and lead-free ceramics based on $BaTiO_3$ and a first combination of organic materials, a second layer, which includes a base metal powder having particles, which are coated with material capable of protecting said base metal against oxidation, and a second combination of organic materials, to produce a first structure;

(b) applying onto said first structure a second structure, which is identical to said first structure to produce a multilayer structure;

(c) heating said multilayer structure at a temperature less than 600°C to remove said first and second combinations of organic materials and their decomposition products to levels below 200 ppm; and thereafter

(d) sintering at a temperature from about 600°C to about 1050°C at a partial pressure of oxygen from about 10^{-3} to 10^{-15} atm to produce said multilayer piezoelectric device with alternating piezoelectric ceramic layers and base metal layers as electrodes.